

REMARKS

Claims 30-34 are pending. Claims 30-33 are rejected under 35 USC 102(b) as being anticipated by Kuchlin et al. ("HIGHROBOT: Telerobotics in the Internet", Copyright 1997). Claim 34 is rejected under 35 USC 103(a) as being unpatentable over Kuchlin in view of US 6,529,780 (Soergel) and US 2004/0015383 (Rathjen).

Claims 30 and 34 are amended herein. Independent claim 30 is clarified by insertion of a definition of the term "integration" from the specification (last line of page 9 to line 2 of page 10) which states "Integration in the server means in particular that an expansion module is loaded, configured, started and terminated directly by the web server." Claims 35-39 are new in response to Examiner's comments in paragraph 12 of the office action, as discussed under "Clarifications" below. Claims 35-38 are supported in the specification on page 10, lines 8-17. Claim 39 is supported on page 9, lines 3-7 and by FIG 3. No new matter has been added. Claims 30-39 are presented for examination. Paragraph numbers herein refer to the substitute specification.

Status of Amendments

The office action of 02-19-2008 states incorrect dates and amendment status under "Detailed action" and "Response to Amendment". The previous amendment was filed 11-21-2007. No amendment was filed 11-30-2007. No amendments were made to the claims on 11-21-2007. They were all canceled and replaced. There was no claim 31 prior to 11-21-2007.

Response to Claim Rejections Under 35 USC 112

The term "operatively installed" means "installed so as to operate", as opposed to "stored as descriptive material". See the usage of the term "operatively" per MPEP below. However, the term "operatively" has been deleted to overcome the objection.

MPEP 2173.05(g):

>In *Innova/Pure Water Inc. v. Safari Water Filtration Sys. Inc.*, 381 F.3d 1111, 1117-20, 72 USPQ2d 1001, 1006-08 (Fed. Cir. 2004), the court noted that the claim term "operatively connected" is "a general descriptive claim term frequently used in patent drafting to reflect a functional relationship between claimed components," that is, the term "means the claimed components must be connected in a way to perform a designated function."

In the office action on top of page 3, Examiner questions the clarity of the recitation: "a plurality of interface-compatible software expansion modules installed on the web server kernel via a common interface protocol between each of the expansion modules and the web server kernel". Examples of such interface protocols are described in the specification as follows:

Applicants' page 10, lines 8-17: "The expansion modules are not coupled by means of proprietary interfaces or interfaces which have been programmed out, but are connected by means of standardized interfaces, for example API (Application Programming Interface) or CGI (Common Gateway Interface). API is a formally defined interface via which application programs can use system services (network, operating system, etc.) or services of other application programs. CGI describes a standard interface between a web server and programs."

In the field of computer science, an interface protocol is a set of rules governing communication between two computing elements. Such rules often exist before computing elements conforming to the rules are developed. API and GCI were, at the time of the invention, known types of formally defined software interfaces. CGI is a standard protocol for interfacing application software with a web server, and is a definite and clear interface specification. One skilled in the art of developing web server extensions would know these software interface protocols.

Clarification of Office Action

Paragraph 11 of the office action is unclear to Applicants. It states that Applicants' arguments with respect to claim 34 are moot in view of new grounds for the rejection below. The "rejection below" is paragraph 12 of the office action, in which Examiner states that

Applicants are unwilling to narrow the claims for allowability. However, claim 34 is narrower than any of the previously submitted claims, so it is unclear what aspect of the claims provoked this reaction. Applicants greatly narrowed the claims in the amendment of 11-21-2007 to such an extent that independent claim 30 is a picture claim of FIG 3. Claim 34 is a further detailing of this picture claim. Applicants are agreeable to narrowing. Suggestions are welcome as to claim language the Examiner might consider as defining the operation and apparatus of the invention over the prior art. New claims 35-39 are added in response to these comments of Examiner.

Response to Rejections Under 35 USC 102

There is no evidence in Kuchlin that his HighRobot industrial automation module is installed as a standard interface-compatible extension of a web server program. On the contrary, the HighRobot is installed on the operating system (par. 4). It operates in parallel with the web server software (par. 2, line 1), and is connected thereto via a custom programmed interface (par. 2, last 3 lines).

Applicants' industrial automation module is integrated directly into the web server. It does not run directly on the operating system in parallel with the web server as in Kuchlin. Instead, Applicants' the web server directly loads, configures, starts, and terminates the industrial automation module (Applicants' specification, last line of page 9 to line 2 of page 10). This architecture is recited in claim 30, and is shown in FIG 3. Furthermore, the industrial extension module interface to the web server is achieved via a standard interface protocol for web server extension modules, such as API (claims 35, 36) or CGI (claims 37, 38). This interface protocol is in common with a plurality of expansion modules (as recited in claim 30, with specific examples detailed in claim 34).

In the office action at top of page 4, Examiner states that Kuchlin teaches web server expansion modules integrated with a web server kernel via a common interface protocol between each of the expansion modules and the web server kernel. However, the cited sections and features of Kuchlin relate to networking with remote clients and the WWW, not to interfacing an industrial automation extension module to a web server software system.

In the last paragraph on page 4, Examiner states that the common interface protocol of Kuchlin is an Internet protocol that provides communication between the expansion modules as well as communication with a client. However, Kuchlin never teaches interfacing expansion modules with the web server via an internet protocol. He only teaches communications with a client via Internet protocol. These are two completely different things. Remote networking protocols are not used in Kuchlin, or in the prior art in general as known to Applicants, to integrate extension modules into web server software. Therefore, this addition to Kuchlin must have been guided by Applicants' invention. The features of Kuchlin cited on top of page 5 of the office action relate to networking, not module integration, which is discussed in Kuchlin in terms of programming.

Since Kuchlin does not teach every aspect of the invention as claimed, Applicants respectfully request withdrawal of the 102 rejections.

Response to Rejections Under 35 USC 103

Soergel and Rathjen do not address the deficiencies in Kim noted under the response to 102 above, so the proposed combinations do not produce the invention as claimed in independent claim 30. Accordingly, Applicants respectfully request withdrawal of the 35 USC 103 rejections.

Conclusion

For anticipation under 35 U.S.C. 102, a reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present (MPEP 706.02(a) IV). The identical invention must be shown in as complete detail as recited in the claim, and the elements must be arranged as required by the claim (MPEP §2131). These criteria are not met by Kuchlin, as argued above. Accordingly, Applicants request withdrawal of the 35 USC 102 rejections. Soergel and Rathjen do not address the deficiencies in Kim as argues under the response to 102 above, so they do not produce the invention as claimed. Accordingly, Applicants request withdrawal of the 35 USC 103 rejections. The dependent claims should be allowable as including the limitations of an allowable base claim. Therefore Applicants feel this application is in condition for allowance, which is respectfully requested.

The commissioner is hereby authorized to charge any appropriate fees due in connection with this paper, including the fees specified in 37 C.F.R. §§ 1.16 (c), 1.17(a)(1) and 1.20(d), or credit any overpayments to Deposit Account No. 19-2179.

Respectfully submitted,

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By: 

John P. Musone
Registration No. 44,961
(407) 736-6449

Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, New Jersey 08830